# Viral Gastroenteritis (Norovirus)
## Outbreak Guidance for Schools in Devon

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The Devon Health Protection Team would like to acknowledge all those who helped formulate this guidance.

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Introduction

This pack provides important information on Infective Viral Gastroenteritis for schools. The most common cause of such outbreaks is a virus called Norovirus (formerly Norwalk virus). Outbreaks caused by other microbes can occur and it is important in every suspected outbreak to seek expert advice from the start. We hope that this information will raise awareness of the importance of early reporting of two or more linked cases of diarrhoea and vomiting or more cases than you would usually expect. Its aims are to ensure staff are aware of their responsibility to act promptly if infective gastroenteritis is suspected either in themselves or their pupils. Don't wait for several cases of sickness and diarrhoea to occur before you report it. Put controls into place, prompt action could prevent a major outbreak of infection. Ensure that information about what to do in a suspected outbreak of infective diarrhoea is cascaded to key staff.

Thank you for your co-operation.

Devon Health Protection Team (HPT)

For more information regarding infections in schools refer to the Spotty Book. If not available, a free copy can be obtained, telephone 01803 861833 or visit the website and download a copy from www.sw-devon-ha.swest.nhs.uk/publicHealth/commdiseases/FinalSpottyBook.pdf
What is Norovirus?

Norovirus is a virus which infects the gut. It causes a self-limiting, highly infectious gastroenteritis which typically lasts for a day or two but may occasionally last for up to a week. It is not a serious illness in healthy people but can be very disruptive in large institutions such as schools. Symptoms can be a combination of any of the following:

- Nausea
- Vomiting
- Abdominal pain
- Diarrhoea

It is sometimes associated with a flu-like illness e.g. aching joints and limbs.

How is Norovirus spread?

Norovirus is spread from the vomit or faeces of an affected person and may be transmitted to others in the following ways:

**Droplets**

- Droplets are formed following vomiting which is often violent and projectile in nature, sometimes without warning
- Diarrhoea is less of a risk for droplet spread if it is contained in the toilet.

**Environment**

- The environment becomes contaminated via the hands or from the settling droplets of vomit. Droplets land on work surfaces etc. and are easily transferable via hands to mouth.

**Food**

- Eating food that has been contaminated by an infected person either directly, vomit droplets or, indirectly contaminated hands also poses a risk of infection.

One vomit contains in excess of 30,000,000 viral particles: ingestion of as few as 10 and 100 viral particles may be enough to cause infection. To reduce the risk of transmission it is essential that vomit/ diarrhoea is cleaned up immediately (Appendix 1).

Incubation period for Norovirus is up to 72 hours, but usually 24 - 48 hours.
What you should do – Staff (including parent helpers, meal time assistants)

- If you have any of the above symptoms, do not come to work.
- Remain off work for 48 hours after the last symptom (exclusion is a legal requirement for food handlers with symptoms).
- Discuss whether you should submit a stool specimen with your GP/HPU.
- Specimens should be submitted via your GP.
- If symptoms commence during your working day – go straight home. The risk of spread is reduced considerably if contamination of the environment is reduced (see Appendix 1).
- Inform the Head Teacher.
- Movement of supply teachers and specialist staff between schools may need to be restricted.
- Staff should supervise hand washing of pupils if possible.

REMEMBER being at work with symptoms poses a risk to children and your work colleagues.

What you should do – Pupils

- Pupils who become ill during the day should be sent home as soon as possible.
- If the child cannot go home they should be kept away from other children if at all possible.
- Parents should be informed verbally that the child should remain off school for 48 hours from the last symptom.
- Parents should consult with their GP whether they should submit a stool specimen from the child.

In the event of a suspected outbreak at school:

- The head teacher or deputy should inform the HPU (01803 861833) and the Local Education Authority. The HPU will in turn notify the local authority Environmental Health Officer the hospital microbiology department and local GPs.
- Wear protective clothing - gloves and plastic aprons that can be disposed of immediately following use if cleaning up soiling e.g. vomit.
- Wash hands on removal of gloves and if hands become soiled - maintain scrupulous hand hygiene – wash hands if in contact with an affected child and at other times after using the toilet, before eating or handling preparing food etc.
- Ensure environmental soiling is cleaned up immediately (see Appendix 1)
- Ensure warm water, soap and paper towels are available in the toilet facilities.
- Stop all communal play i.e. sand, water and cooking until outbreak over.
- Arrange for toilets and facilities to be cleaned more often to reduce the risk of transmission of the infection via environmental contamination e.g. toilet seats, toilet flush and door handles etc.
- Staff or children who become ill during the day should be sent home as soon as possible and if possible kept away from other children.
- The head teacher will be advised by the HPU to send out a letter informing parents of their responsibility (see appendix 2).

During an outbreak the HPU will contact the school regularly to collect information about new cases. Please ensure that the information is documented on the outbreak form (Appendix 3) and is easily located.

**Some commonly asked questions about gastro enteritis in schools.**

*How do we know if it is viral in nature?*
Informing the HPU at the start of an outbreak will enable us to assess the likely nature of the outbreak. The following information is important: symptoms, numbers affected, timescales, dates of onset of illness, duration of illness in affected individuals. Stool samples are important, particularly to rule out more serious causes of infection. If it is thought to be related to food handlers/food then the local environmental health officer at your council will take the lead.

*What happens when a child vomits in the food hall?*
If possible the child should be sent home as soon as possible. Any vomit should be cleaned up immediately and disposed of into a plastic bag and secured and disposed of safely. Under no circumstances should vomit go into the food preparation area as this could pose a threat of further transmission if the environment becomes contaminated. Any children in the immediate vicinity of the vomiting should be offered alternative food stuffs, as the likelihood is that their food will have been contaminated by aerosol droplets.

*Under what circumstances would the school need to be closed?*
It would depend on a number of issues e.g. the numbers of children/staff with illness and whether the school can cope. The HPU does not have the power to close the school that decision would be made by the head teacher and the LEA.

*Will every area of the school need to be cleaned even if it has not been contaminated?*
A risk assessment will be made by the HPU and the head teacher. It is important that a record is kept of the location of where contamination i.e. vomiting occurred. If there are only a moderate number of cases and the areas have been cleaned appropriately (as per Appendix 1) then a thorough
general clean will suffice in most cases once the outbreak is deemed to be over.
Appendix 1
THE CLEANING, REMOVAL AND DISPOSAL OF BODY FLUIDS

NB. The current guidance on cleaning up spills and the recommendation from the HPU is detergent and water followed by a standard hypochlorite (0.1%) solution to disinfect (e.g. Milton diluted as detailed by the manufacturer). However there are differing opinions within the local authorities on the choice of products that are used for cleaning. Instructions from the manufacturer should be followed.

**Note** All disinfectant solutions must contain 0.1% hypochlorite. (It is important that the product chosen can specifically deal with virus).

Spillages of diarrhoea and vomit should always be attended to as quickly as possible.

**Step 1** Always assess the risk of carrying out the required task before you begin.

**Step 2** Isolate the affected area, for example, with warning cones, if at all possible.

**Step 3** Make sure that all the protective clothing and equipment you require is available (disposable latex gloves and plastic aprons).

**Step 4** Put on the protective clothing.

**Step 5** Contain the spill, if needs be, by placing disposable wipes/paper towels around it.

**Step 6** Remove the bulk of the contamination with paper towels. The area should be cleaned thoroughly with detergent and water, using disposable cloths. Then wiped over using with a standard hypochlorite solution or the recommended product agreed by your locality which should also contain 0.1% hypochlorite. Ensure adequate ventilation when using hypochlorite solutions.

**Step 7** Put all disposable items into a plastic bag, consider double bagging if bags are flimsy, tie and dispose.

**Step 8** All re-usable items must be thoroughly cleaned, disinfected and dried before being returned to the correct storage area. The cleaning of such equipment must be carried out in the cleaning equipment sink and never anywhere else.

**Step 9** Thoroughly wash your hands on removal of gloves with soap and water and dry well.
Step 10  Remove safety cones when the area is dry.

Step 11  Report any shortfalls in the protective clothing or equipment used for dealing with body fluids to the person responsible for maintaining stock levels.

The disinfectant solution should always be freshly prepared and then discarded when you have finished (in the cleaners sink) - the solution may become deactivated after 24 hours.

NB: If the spillage has taken place on a carpet, thoroughly clean the affected area using disinfectant (but not hypochlorite). If possible use a steam cleaner if appropriate, or a carpet extraction machine.

It is important that all visible soiling is physically removed prior to disinfection.

Once the outbreak is over then a thorough environmental clean should suffice.

It is important that all staff work together to enable the final clean to be performed in a safe, timely manner. Good communication between the HPU, school and cleaning agency etc. is essential.

Prior to cleaning ensure:
  - Areas to be cleaned are emptied of as many children's personal belongings as possible e.g. lunch boxes are taken home, gym kit, coat etc.

It is the responsibility of the school to ensure soiling (i.e. vomit or diarrhoea) is cleaned up in a timely manner to reduce the risk of further transmission.

Process of Cleaning:
  - Table tops where dust collects
  - Door handles and edges
  - Floors
  - Toilet facilities; including edges of doors, door handles, light switches etc

All areas are to be damp dusted with detergent and water and then a standard hypochlorite solution, or appropriate locally agreed product. This ensures that dust and possible virus particles are wiped away. If necessary and on discussion with the HPU curtains are steam-cleaned insitu unless there are mitigating circumstances and they need to be taken down and washed. Carpets if soiled should be steam cleaned or at least shampooed. (Hypochlorite solution should not be used on carpet or soft furnishings as it may damage the fabric. Please check manufacturer’s advice on the product for more information).
Appendix 2 Suggested letter for parents.

Date

Dear Parent/Guardian

I am writing to let you know that a number of children and staff at school have had gastro-enteritis over the last few days.

I have been advised by the Health Protection Unit and Environmental Health departments that this is a mild illness probably caused by a virus, but that it is very infectious. The most usual symptom is vomiting. Some people may have diarrhoea and/or abdominal pain. Symptoms rarely last for more than 24 - 48 hours. The incubation period (time it takes for the illness to develop) is between 24 and 48 hours.

If your child is affected, please keep him or her off school. He or she should not return until 48 hours after the diarrhoea and vomiting have stopped.

The virus is easily spread from person to person. Good hygiene by everyone in the family reduces the risk. This means washing hands with soap and warm water after going to the toilet and before preparing or eating food.

It is important to clean up carefully when someone has been sick as vomit is very infectious. It is important to clear up spills of vomit or faeces immediately, by thorough washing of the contaminated environment with soap and hot water. For hard surfaces, (floor, work tops etc) an additional disinfection with a dilute solution of Milton or household bleach (according to manufacturer’s instructions) will reduce the contamination. DO NOT MIX these substances with soap and water. Be sure that each family member uses separate towels and flannels which are changed and washed frequently. Hand washing after visiting the toilet, cleaning up spillages and before handling food is the most important element of reducing the risk of infection.

We are ensuring the school is thoroughly cleaned to reduce any further risk.

If you need any further advice you can phone NHS Direct on 0845 4647 or Health Protection on 01803 861833.

Yours faithfully

Head Teacher
# Appendix 3 Outbreak Form

<table>
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<tr>
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<th>Name</th>
<th>Date of onset</th>
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**Total**
Appendix 4

Useful Contact Numbers

Devon Health Protection Team 01803 861833

These are the Environmental Health Telephone numbers for Devon.

Local Environmental Health Officers can be contacted as follows:

East Devon 01395 516551

South Hams 01803 861234

Exeter 01392 277888

Teignbridge 01626 361101

Mid Devon 01884 255255

Torbay 01803 208010

North Devon 01271 388870

Torridge 01237 428809

Plymouth 01752 668000

West Devon 01822 813600